MPR 8500.1
REVISION C
EFFECTIVE DATE: December 21, 2005
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MARSHALL PROCEDURAL REQUIREMENTS

AS01

MSFC ENVIRONMENTAL MANAGEMENT PROGRAM

DOCUMENT HISTORY LOG

Status (Baseline/ Revision/ Canceled)	Document Revision	Effective Date	Description
Baseline		4/8/02	This MPG replaces MPG 8870.1, "Environmental Management Program." NASA Headquarters changed the numbering system for environmental documents.
Revision	A	11/25/02	Deleted the reference to MWI 8540.1, "Pollution Prevention," in Section P.4. Added pollution prevention and recycling information to Section 3.6. Replaced AD02 with AD60 in 3.14.2.
Revision	B	10/22/2004	This revision is in response to an action from NASA Headquarters requiring specific verbiage and updating document references.
Revision	C	12/21/2005	Updated Section 3.10 to reflect new requirements in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) program. Added appropriate definitions in Section 1.2. Updated document throughout to reflect organization change from Environmental Engineering and Management Office (AD10) to Environmental Engineering and Management Office (AS10). Updated Section 3.3.2 to be consistent with 40 CFR 112.7(c) and 40 CR 112.7(h) (1). Updated Section 3.13 regarding wetland permitting procedures. Deleted significant portions of Section 3.9 regarding procedures for asbestos and lead since that responsibility lies within Occupational Medicine & Environmental Health Services (AS60). AS60 is drafting a new directive with asbestos requirements.

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PREFACE

P.1 PURPOSE

This Marshall Procedural Requirements (MPR) provides general procedures and requirements for the Marshall Space Flight Center (MSFC) environmental management program. The MSFC environment includes the soil, water, air, and natural habitat within and around MSFC boundaries. This MPR defines and establishes the responsibilities of the Environmental Engineering and Management Office (EEMO) and MSFC user organizations for managing and conducting environmental activities. This MPR also ensures the cooperation and support of all MSFC user organizations in an effort to achieve the environmental goals of the National Aeronautics and Space Administration (NASA) and MSFC and to meet Federal, State, and local environmental regulatory requirements.

P.2 APPLICABILITY

This MPR applies to all MSFC user organizations and onsite contractors.

P.3 AUTHORITY

a. NPD 8500.1, "NASA Environmental Management"

b. MPD 8500.1, "MSFC Environmental Management"

c. Alabama Department of Environmental Management (ADEM) Administrative Code 335

P.4 APPLICABLE DOCUMENTS

a. AS10-OI-001, "Consolidated Environmental Response Plan"

b. AS20-OWI-012, "MSFC Digging Permits"

c. Executive Order (EO) 13101, "Greening the Government through Waste Prevention, Recycling, and Federal Acquisition"

d. EO 13123, "Greening the Government through Efficient Energy"

e. EO 13148, "Greening the Government through Leadership in Environmental Management"

f. EO 13149, "Greening the Government through Federal Fleet and Transportation Efficiency"

g. Field Manual of Threatened and Endangered Species Potentially Occurring at MSFC

h. MPD 1860.1, "Laser Safety"

i. MPD 1860.2, “Radiation Safety Program”

j. MPD 8570.1, “MSFC Energy Management Program”

k. MPR 1040.3, “MSFC Emergency Plan”

l. MPR 1800.1, “Bloodborne Pathogens”

m. MPR 1840.3, “MSFC Hazardous Chemicals in Laboratories Protection Program”

n. MPR 3410.1, “Training”

o. MSFC Title V Operating Permit

p. MWI 8540.2, “Affirmative Procurement Program for Environmentally Preferable Products”

q. MWI 8550.1, “Waste Management”

r. MWI 8550.2, “Storm Water Management”

s. MWI 8550.3, “Wastewater Compliance”

t. MWI 8550.4, “Air Emissions Compliance”

u. MWI 8550.5, “Hazardous Materials Compliance”

v. MWI 8621.1, “Close Call and Mishap Reporting and Investigation Program”

w. NASA Headquarters Environmental Management Reference Manual

x. NPR 8580.1, “Implementing the National Environmental Policy Act and Executive Order 12114”

y. AR200-7, Army Regulation – “Redstone Arsenal Site Access Control Program”

P.5 REFERENCES

a. MPR 8500.2, “MSFC Environmental Management System Manual”

b. MPR 8715.1, “MSFC Safety, Health, and Environmental (SHE) Program”

c. “MSFC Pollution Prevention Plan Update,” April 2005

d. MSFC Site Management Plan

e. NASA/MSFC State Industrial Discharge (SID) Permit issued by ADEM

f. National Pollutant Discharge Elimination System (NPDES) Permit

g. Title V Permit Application, Clean Air Act (CAA)

P.6 CANCELLATION

MPR 8500.1 Revision B dated October 22, 2004

Original signed by
Robin N. Henderson for

David A. King
Director

DOCUMENT CONTENT

1. DEFINITIONS

1.1 Acronyms

1.1.1 ACHP. Advisory Council on Historic Preservation

1.1.2 ACM. Asbestos-Containing Material

1.1.3 ADEM. Alabama Department of Environmental Management

1.1.4 AS01. Organization code for MSFC Office of Center Operations

1.1.5 AS10. Organization code for MSFC Environmental Engineering & Management Office

1.1.6 AST. Above Ground Storage Tank

1.1.7 BMP. Best Management Practice

1.1.8 CAA. Clean Air Act

1.1.9 CEQ. Council of Environmental Quality

1.1.10 CERCLA. Comprehensive Environmental Response, Compensation, and Liability Act

1.1.11 CERP. Consolidated Environmental Response Plan

1.1.12 CFR. Code of Federal Regulations

1.1.13 CoF. Construction of Facilities

1.1.14 CWA. Clean Water Act

1.1.15 DA. Department of the Army

1.1.16 DI. Deionized

1.1.17 DOT. Department of Transportation

1.1.18 EEMO. MSFC Environmental Engineering & Management Office

1.1.19 EO. Executive Order

1.1.20 EPA. Environmental Protection Agency

1.1.21 EPCRA. Emergency Planning and Community Right-to-Know Act

1.1.22 ESC. Environmental Support Contractor

1.1.23 EO. Executive Order

1.1.24 FIFRA. Federal Insecticide, Fungicide, and Rodenticide Act

1.1.25 FFA. Federal Facilities Agreement

1.1.26 FMO. Facilities Management Office

1.1.27 HAP. Hazardous Air Pollutant

1.1.28 HAZWOPER. Hazardous Waste Operations and Emergency Response

1.1.29 HWSF. Hazardous Waste Storage Facility

1.1.30 IDW. Investigation-Derived Waste

1.1.31 IWTF. Industrial Wastewater Treatment Facility

1.1.32 LH2. Liquid Hydrogen

1.1.33 LUC. Land Use Control

1.1.34 MOA. Memorandum of Agreement

1.1.35 MPD. Marshall Policy Directive

1.1.36 MPR. Marshall Procedural Requirements

1.1.37 MSDS. Material Safety Data Sheet

1.1.38 MSFC. Marshall Space Flight Center

1.1.39 MWI. Marshall Work Instruction

1.1.40 NAAQS. National Ambient Air Quality Standards

1.1.41 NASA. National Aeronautics and Space Administration

1.1.42 NEPA. National Environmental Policy Act

1.1.43 NESHAP. National Emission Standards for Hazardous Air Pollutants

1.1.44 NHB. NASA Handbook

1.1.45 NMFS. National Marine Fisheries Service

1.1.46 NORS. NASA Online Registration System

1.1.47 NPD. NASA Policy Directive

1.1.48 NPDES. National Pollutant Discharge Elimination System

1.1.49 NRHP. National Register of Historic Places

1.1.50 NSPS. New Stationary Pollutant Sources

1.1.51 NWP. Nationwide Permit

1.1.52 ODS. Ozone Depleting Substance

1.1.53 OI. Organizational Issuance

1.1.54 OMEHS. Occupational Medicine and Environmental Health Services

1.1.55 OSHA. Occupational Safety and Health Administration

1.1.56 P2. Pollution Prevention

1.1.57 PCB. Polychlorinated Biphenyl

1.1.58 PCN. Preconstruction Notification

1.1.59 POC. Point of Contact

1.1.60 RCRA. Resource Conservation and Recovery Act

1.1.61 RMP. Risk Management Program

1.1.62 SAA. Satellite Accumulation Area

1.1.63 SHE. Safety, Health, Environmental

1.1.64 SID. State Industrial Discharge

1.1.65 SMP. Site Management Plan

1.1.66 TSCA. Toxic Substances and Control Act

1.1.67 TVA. Tennessee Valley Authority

1.1.68 USACE. U.S. Army Corps of Engineers

1.1.69 USFWS. U.S. Fish and Wildlife Service

1.1.70 UST. Underground Storage Tank

1.1.71 UXO. Unexploded Ordnance

1.2 Definitions

1.2.1 Air Releases. Release of substances to the air that are known to cause, or reasonably anticipated to cause, death, injury, or serious adverse effects to human health or the environment.

1.2.2 Biohazardous Sharps Waste. Devices capable of cutting or piercing that are contaminated with biohazardous waste. Examples include contaminated hypodermic needles, scalpels, razor blades, and x-acto blades.

1.2.3 Biohazardous Waste. Waste (including animal carcasses) contaminated with infectious agents known to cause human illness and not contaminated with radioactive materials or hazardous chemicals.

1.2.4 Controlled Waste. Waste streams not classified as hazardous (according to regulation) but that require specific processing, handling, or disposal different from other solid wastes.

1.2.5 Dangerous Spill. A spill of materials or waste that may be a threat to human health or the environment if not contained and controlled.

1.2.6 Debris. Solid material exceeding a 60-millimeter particle size, intended for disposal, and is a manufactured object, plant or animal matter, or natural geologic material. However, the following materials are not debris: any material for which a specific treatment standard is provided in 40 CFR, Subpart D, Part 268, namely lead acid batteries, cadmium batteries, and radioactive lead solids; process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludge, or air emission residues; and intact containers of hazardous waste that are not ruptured and that retain at least 75 percent of their original volume. A mixture of debris that has not been treated to the standards provided by 40 CFR 268.45 and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based

on visual inspection.

1.2.7 Empty Compressed Gas Cylinder. A container that has held a hazardous material that is a compressed gas is empty when the pressure in the container approaches atmospheric pressure.

1.2.8 Empty Container. A container or an inner liner removed from a container that held any hazardous material/waste, except a compressed gas or a container that is identified as an acute hazardous waste is empty if all removable materials have been removed using the practices commonly employed to remove materials from that type container (e.g., pouring, pumping, and aspirating); no more than 1 inch of residue may remain on the bottom of the container. (Note: Empty containers can be hazardous.)

1.2.9 Environmental Activities. Includes all projects, studies, analyses, monitoring, and operational involvement of Center elements where the objective is pollution abatement and/or improvement of environmental quality. Included are such activities as environmental assessments, environmental impact statements, construction and operational permits, air and water quality modeling and monitoring systems, ecological baselining, plant operations, effluent monitoring, sanitary landfill, pesticides applications, and flight impact studies (e.g., sonic boom, risk, and meteorology assessments).

1.2.10 Environmental Site. Contaminated or potentially contaminated areas within NASA control that are being evaluated under NASA's FFA.

1.2.11 Federal Facility Agreement (FFA). A three-party agreement between EPA, NASA, and ADEM that governs how NASA investigates and cleans up environmental sites.

1.2.12 Hazardous Material. Any material/chemical defined as hazardous under 29 CFR 1910.120(c) and includes material presenting health and/or physical hazard; such material has one or more toxic, flammable, corrosive, or reactive properties.

1.2.13 Hazardous Waste. A waste or combination of wastes that can pose a substantial or potential hazard to human health or the environment when not properly managed; possesses at least one of four characteristics (ignitable, corrosive, reactive, or toxic) or appears on special EPA lists; includes toxic waste, spilled materials, and unused chemicals.

1.2.14 Hazardous Waste Generator. Organization that creates hazardous waste byproducts.

1.2.15 Investigation-Derived Waste (IDW). Waste generated during well drilling (soil cuttings), purged water from monitoring wells, rinse waters, etc., from investigations of potentially contaminated sites.

1.2.16 Medical Waste. Biohazardous waste, biohazardous sharps waste, and pathology waste.

1.2.17 Oil. Any kind or in any form, including but not limited to, petroleum products,

lubricants, fuel oil, sludge, oil refuse, vegetable oil, animal oil, and oil mixed with wastes other than dredged spoil.

1.2.18 Pathology Waste. Recognizable human anatomical parts and fixed human surgery specimens and tissues.

1.2.19 Recycling. The diversion of materials from the solid waste stream and the beneficial reuse of such materials.

1.2.20 Remedial Investigation. Sampling and analysis of soil and water at environmental sites to determine the existence and/or extent of contamination.

1.2.21 Site Access Control Program. Program designed to prevent unauthorized activity at environmental sites.

1.2.22 Small Spill. Any spill that is not dangerous and can be properly cleaned up by the personnel responsible for the spill.

1.2.23 Solid Waste. Garbage, refuse, sludge, and other discarded solid materials, including solid waste materials resulting from industrial, commercial, and agricultural operations, and from community activities; but does not include solid or dissolved materials in domestic sewage or other significant pollutants in water resources, such as silt, dissolved or suspended solids in industrial wastewater effluents, dissolved materials in irrigation return flows, or other common water pollutants.

1.2.24 Special Waste. A waste that does not fall into the categories of hazardous or nonhazardous waste. Examples are spray on foam insulation, media blasting, batteries, universal waste, and used oil.

1.2.25 Storm Water. Any runoff water or contained water resulting from rain.

1.2.26 UST. A storage tank and its integral piping system that has greater than 10 percent of its storage capacity in contact with the ground.

1.2.27 Unexploded Ordnance. Chemical and conventional military munitions that have been primed, fused, armed, or otherwise prepared for action, and have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installation, personnel, or material, and remain unexploded either by malfunction, design, or other cause.

1.2.28 Universal Waste. Those wastes that would normally be regulated as hazardous wastes, but that have been classified as “universal wastes” with alternative management standards. Examples include batteries, pesticides, mercury-containing thermostats, and lamps.

1.2.29 Used Oil. Any oil that has been refined from crude oil or synthetic oil and is no longer

used for its original purpose.

2. RESPONSIBILITIES

2.1 The MSFC Director shall be responsible for all environmental compliance activities of the Center, including its component installations (i.e., Michoud Assembly Facility, etc.).

2.2 The Office of Center Operations, under the delegated authority of the MSFC Director, shall be responsible for the MSFC Environmental Compliance Program.

2.3 The EEMO shall have overall environmental responsibilities as the Center focal point for environmental activities. Under the delegated authority of the Director, Office of Center Operations, the EEMO shall provide continuous surveillance, review, evaluation, and assurance of environmental activities at all levels throughout the Center. Under this authority, the EEMO has control for approval or cessation of all phases of acquisition and operation of hazardous or potentially hazardous facilities, systems, or equipment that may result in noncompliance with regulatory standards.

2.4 All Center Organizations, through the Directors/Managers of basic organizations, shall ensure that internal organizational plans and procedures are maintained to implement and comply with the Federal, State, and local environmental laws and regulations.

3. PROCEDURES

3.1 Personnel Training and Certification. As required to meet Federal, State, and NASA regulations, ordinances, and guidelines, all personnel involved in hazardous waste operations and transportation, chemical inventory, storm water management, asbestos, lead, and PCB abatement activities, emergency and chemical spill activities shall undergo a training and certification program. Supervisors shall ensure that their employees complete the appropriate training.

3.1.1 HAZWOPER (29 CFR 1910.120). Employees designated to participate in emergency response operations or site remediation shall be trained and certified before taking part in actual emergency operations and shall receive annual refresher training. Annual refresher training is provided by the EEMO and meets OSHA 29 CFR 1910.120 requirements. Records of training and certification shall be retained by the employer for at least 5 years.

3.1.2 Hazardous Waste Personnel Training (ADEM Rule 335-14-6-.02(7)). Training and certification shall be given to all hazardous waste operations personnel working at the MSFC HWSF, Building 4640. This training shall occur within 6 months of being hired, with employees not working in an unsupervised capacity until they are trained. Training shall be renewed every 365 days. The employer shall retain records of training and certification for at least 5 years.

3.1.3 Hazardous and Controlled Waste Generator Training (ADEM Rule 335-14-5-.02(7)). Training shall be given to personnel who utilize accumulation sites. This training shall occur within 6 months of being hired or of assuming new duties that are associated with hazardous waste, with employees not working in an unsupervised capacity until they are trained. Training shall be renewed annually. This training is provided by the EEMO.

3.1.4 Chemical Inventory Reporting Training. This annual training shall be required for all personnel responsible for maintaining a chemical inventory or purchasing chemicals. All chemical users are encouraged to take this training. This training is necessary for MSFC to maintain an accurate chemical inventory for reporting purposes.

3.1.5 Incident Command Training. Employees designated to manage emergency response operations shall be trained and certified and shall receive annual refresher training. Annual refresher training is provided by the EEMO and meets 29 CFR 1910.120 requirements. The employer shall retain records of training and certification for at least 5 years.

3.1.6 Storm Water Inspection Training. All personnel involved in storm water inspections shall attend an annual training class provided by the EEMO to ensure that inspections are being carried out regularly and correctly.

3.1.7 Air Compliance Awareness Training. Operators of Title V Permit significant, insignificant, and trivial sources shall be trained in basic essentials in equipment maintenance, source inspection, and record keeping.

3.1.8 Spill Prevention, Control, and Countermeasures Training. All AST and UST users and operators shall attend an annual spill prevention briefing provided by the EEMO. These briefings shall cover the following: loading and unloading procedures; site drainage; spill response procedures; applicable pollution control laws and regulations; known spill events or failures, malfunctioning storage components, and precautionary measures.

3.1.9 Affirmative Procurement Training. This training informs personnel of the E.O. 13101 requirement to purchase items made from recycled material. This training is recommended for personnel purchasing any items from the following product categories: construction, landscaping, office products, paper and paper products, park and recreations products, transportation, vehicular.

3.1.10 Environmental Management System General Awareness Training. Personnel shall have access to general awareness training of the MSFC Environmental Management System, which informs the user of the Center's environmental policy and high priority aspects.

3.2 Waste Management. The broad goals set by RCRA include protecting human health and the environment from the hazards posed by waste disposal; conserving energy and natural resources through waste recycling and recovery; reducing or eliminating the amount of waste generated; and managing wastes to protect human health and the environment. Solid waste compliance

includes activities pertaining to hazardous waste, controlled waste, special waste, universal waste, used oil, and debris. The programs under RCRA focus on three waste categories:

- Subtitle C — This hazardous waste program regulates hazardous waste from origination to its ultimate disposal.

- Subtitle D — This solid waste program includes minimum Federal technical standards and guidelines for State solid waste plans.

- Subtitle I — This UST program regulates underground tanks that contain petroleum or hazardous substances, as defined under CERCLA.

3.2.1 Responsibilities of the EEMO. The EEMO shall:

3.2.1.1 Ensure proper management and disposal of hazardous and controlled wastes in accordance with applicable regulations.

3.2.1.2 Provide guidance and instruction to MSFC user organizations regarding hazardous and controlled waste management and disposal.

3.2.1.3 Provide training for organization personnel.

3.2.1.4 Properly dispose of waste materials in accordance with MWI 8550.1, “Waste Management.”

3.2.1.5 Provide guidance and instructions to MSFC user organizations regarding universal wastes and other materials to be recycled.

3.2.1.6 Obtain one-time written and signed notice from used oil burner prior to shipping any off-specification used oil fuel to used oil burner.

3.2.1.7 Report to State and Federal agencies as needed.

3.2.2 Responsibilities of MSFC User Organizations. Each organization using or generating hazardous and controlled wastes shall:

3.2.2.1 Ensure that waste materials generated are properly managed as listed in MWI 8550.1, “Waste Management.”

3.2.2.2 Appoint one POC and two alternates for each container collecting waste area and ensure that the personnel attend the hazardous and controlled waste generator training annually.

3.2.2.3 Maintain hazardous material/waste tanks and containers to ensure structural integrity.

3.2.2.4 Maintain proper identification and labeling of all hazardous material/waste in the area.

3.2.2.5 Identify all expected waste-producing processes prior to beginning the process and submit the MSDS and MSFC Form 4072 to the EEMO. See MPR 1840.2, "MSFC Hazard Communication Program," for proper distribution of MSDS.

3.2.3 General Information and Requirements.

3.2.3.1 Specific instructions for waste management are listed in MWI 8550.1, "Waste Management," and cover the following: New or existing hazardous waste streams, medical waste, chemical product disposal, unknown chemical disposal, empty container management, and debris disposal.

3.2.3.2 Handling of medical waste or other potential infectious materials shall be in accordance with MPR 1800.1, "Bloodborne Pathogens."

3.2.3.3 Training of employees with potential occupational exposure is the responsibility of each MSFC user organization/contractor involved in the generation of controlled waste and shall be provided at the time of initial assignment and as required thereafter.

3.2.3.4 If the waste material is a recyclable item (e.g., drums, pallets, white paper, cardboard, toner cartridge, oil, tires), employees shall ensure that the item is recycled by placing it in the appropriate recycle bin or by contacting the Center Recycling Coordinator.

3.2.3.5 Regular trash shall be placed in regular garbage cans/dumpsters.

3.3 Hazardous Materials Compliance. The EPCRA of 1986 establishes requirements regarding emergency planning and "Community Right-to-Know" reporting on hazardous and toxic chemicals. Section 311 requires facilities that have MSDSs for chemicals (i.e., hazardous materials) held above certain quantities to submit either copies of their MSDSs or a list of MSDS chemicals to the State Emergency Response Commission, the local emergency planning committee, and the local fire department. MSFC maintains an inventory of chemicals used/stored onsite for reporting the annual chemical inventory and toxic release inventory to EPA, ADEM, and other regulatory agencies.

3.3.1 Responsibilities of the EEMO. The EEMO shall:

3.3.1.1 Ensure proper tracking and reporting of chemicals.

3.3.1.2 Maintain a chemical inventory database of all chemicals used at MSFC. See Section 4 for records disposition.

3.3.1.3 Report, as required, to agencies about chemicals at MSFC.

3.3.2 Responsibilities of MSFC User Organizations. MSFC user organizations shall:

3.3.2.1 Appoint at least one chemical inventory POC for each office/department within the organization.

3.3.2.2 Accurately report chemicals stored and used per chemical inventory requirements.

3.3.2.3 Provide appropriate containment or diversionary structures or equipment for containers storing 55 gallons of oil or more.

3.3.2.4 Ensure that all chemicals are either purchased through the MSFC Retail Store or sent through MSFC Central Receiving for barcoding.

3.3.3 General Information and Requirements. Specific procedures are documented in MPR 1840.3, "MSFC Hazardous Chemicals in Laboratories Protection Program," and MWI 8550.5, "Hazardous Material Management," for each organization/laboratory/facility.

3.4 Chemical Spills. Under EPCRA, facilities shall immediately notify the local emergency planning committee (Redstone Arsenal Emergency Planning Committee) and the State Emergency Response Commission if there is a release into the environment of a hazardous substance that is equal to or exceeds the minimum reportable quantity set in the regulations. This requirement covers 356 extremely hazardous substances and more than 700 hazardous substances subject to the emergency notification requirements under CERCLA Section 103(a) (40 CFR 302.4). A written follow-up notice shall be submitted to the local emergency planning committee and the State Emergency Response Commission as soon as practicable after the release. The follow-up notice shall update information included in the initial notice and provide information on actual response actions taken and advice regarding medical attention necessary for citizens exposed.

3.4.1 Responsibility of the EEMO. The EEMO shall:

3.4.1.1 Respond to any spill when requested or when notified by a 911 emergency call.

3.4.1.2 Provide direction in proper cleanup of chemical spills.

3.4.1.3 Notify ADEM and EPA of all reportable quantity spills, as required, and provide written follow-up, as needed in accordance with AS10-OI-001.

3.4.2 Responsibility of MSFC User Organizations. Each organization shall:

3.4.2.1 Evaluate whether the spill can be cleaned up internally.

3.4.2.2 Begin immediate cleanup of small spills of known type and quantity; call 544-3919 for assistance, if necessary.

3.4.2.3 Call 911 for all other spills, including small spills of unknown type, all dangerous chemical spills, and all large spills. Organizations shall implement MPR 1040.3, "MSFC Emergency Plan," Environmental HAZMAT/Radiological/Ordnance Normal-Duty and After-Duty Hours section to include notifications/activations and the steps/actions to be taken.

3.4.2.4 Clean up spill and ensure proper disposal of waste materials from small spills. Notify EEMO of all spills regardless of size, such that a determination shall be made whether the spill exceeds a reportable quantity as defined in 40 Code of Federal regulations 300.

3.4.2.5 Submit a Mishap Report per MWI 8621.1, "Close Call and Mishap Reporting and Investigation Program," depending on the severity of the spill.

3.4.3 General Information and Requirements. All chemical spills shall be cleaned up immediately after occurrence to ensure the safety of employees and to protect the environment.

3.5 Ordnance. MSFC is committed to ensuring that human health, environmental, and safety concerns are addressed in the event that UXO is discovered. To address these concerns, MPR 1040.3, "MSFC Emergency Plan," addresses the discovery of UXO.

3.5.1 Responsibility of the EEMO. The EEMO shall maintain a current map of known UXO in coordination with the U.S. Army. This map is maintained by the EEMO Geographic Information System (GIS) database.

3.5.2 Responsibility of MSFC User Organizations. Organizations shall implement MPR 1040.3, "MSFC Emergency Plan," Environmental HAZMAT/Radiological/Ordnance Normal-Duty and After-Duty Hours section to include notifications/activations and the steps/actions to be taken.

3.5.3 General Information and Requirements. EEMO shall sign off on all appropriate dig permits obtained through the FMO in accordance with AS20-OWI-012.

3.6 Pollution Prevention (P2). P2 is the most cost-effective approach to environmental management. By reducing the use of toxic chemicals, P2 improves worker health and safety, protects the environment, helps maintain facility compliance with environmental regulations, and saves money. The MSFC goal is to meet Federal requirements to reduce the release and offsite transfer of toxic chemicals without jeopardizing its mission. P2 includes source elimination or reduction, material replacement or substitution, affirmative procurement, recycling, and conservation of fuel, energy, and water. As a Federal agency, NASA is expected to comply with specific EOs regarding P2. Applicable EOs are listed and described in Table 3.6.

Table 3.6 Summary of Executive Orders

Executive Order	Description
EO 13101, "Greening the Government through Waste Prevention, Recycling, and Federal Acquisition"	Affirmative procurement of environmentally preferable products containing recycled or recovered material
EO 13123, "Greening the Government through Efficient Energy"	Reduce greenhouse gas emissions from facility energy use by 30 percent by 2010
EO 13148, "Greening the Government through Leadership in Environmental Management"	Emphasize pollution prevention as a means to both achieve and maintain environmental compliance
EO 13149, "Greening the Government through Federal Fleet and Transportation Efficiency"	Reduce the MSFC vehicle fleet annual petroleum consumption by 20 percent by 2005

3.6.1 Responsibilities of the EEMO. The EEMO shall:

3.6.1.1 Develop and annually update a MSFC P2 Plan and pursue the goals set forth in the P2 Plan. The P2 Coordinator is the custodian of the MSFC P2 Plan.

3.6.1.2 Ensure that MSFC complies with applicable EOs regarding pollution prevention.

3.6.1.3 Appoint a P2 coordinator within EEMO to develop, implement, and maintain the MSFC P2 Plan.

3.6.1.4 Make the P2 Plan available to Directorate and Office managers, to those involved in P2 projects and activities, and to others as requested.

3.6.2 Responsibility of the Manager, FMO, and the Energy Manager. The Manager, FMO, shall appoint an energy manager to implement the MPD 8570.1, "MSFC Energy Management Program." The energy manager shall implement MPD 8570.1 and EO 13123.

3.6.3 Responsibilities of MSFC User Organizations. Organizations shall:

3.6.3.1 Use less hazardous or less toxic materials when and where feasible.

3.6.3.2 Actively seek and use less hazardous chemicals instead of hazardous chemicals.

3.6.3.3 Perform life-cycle costing when evaluating new processes and/or modifications to ensure

cost-effective considerations.

3.6.3.4 Whenever possible, purchase products containing recycled material in accordance with EO 13101 and MWI 8540.2, "Affirmative Procurement Program for Environmentally Preferable Products."

3.6.4 General Information and Requirements.

3.6.4.1 Recycle containers are provided in offices and reproduction rooms throughout Center buildings for white paper recycling. Acceptable paper items include:

a. Computer paper, shaded (14-7/8" wide)
b. White computer paper (8-1/2" wide)
c. White bond paper (e.g., typing paper)
d. White tablet paper
e. *Marshall Star*
f. Old documents on white bond paper
g. Envelopes (white, without address window)
h. White letterhead stationery

3.6.4.2 Items that cannot be recycled with white office paper include:

a. Manila file folders
b. Colored paper
c. Newspapers, phonebooks
d. Carbon paper, blueprints
e. Self-stick removable notes
f. Glossy, slick paper
g. Food coverings (paper containing foil, wax, etc.)
h. Adding machine tape
i. Poster stock
j. Tissues, napkins, etc.
k. Magazines or catalogs

3.6.4.3 Recycle corrugated cardboard by placing it near normal trash collection locations within the building and designate as "trash." Custodial personnel collect and transport the boxes to the cardboard recycle facility.

a. Do not recycle moving boxes, as they are reused by the furniture movers. Contact the logistics contractor to coordinate collection of moving boxes.

b. Care shall be taken to ensure that corrugated cardboard staged for collection and recycling does not interfere with building traffic flow or block emergency exit routes.

c. Contact the custodial contractor to request special pickups of unusually large quantities of cardboard or guidance on safe and proper staging of these materials.

3.6.4.4 Recycle plastic bottles by placing them in the appropriately labeled recycle containers, typically located near vending machines containing 20-ounce bottled drinks. If there is not a container in your area, call the recycling coordinator to request one.

3.6.4.5 Recycle aluminum cans by placing them in the appropriately labeled recycle containers located in high traffic areas of MSFC buildings. Empty cans before placing them into recycle containers to minimize odor, insect and animal pests, and potential health concerns.

3.6.4.6 Recycle toner cartridges by placing them in the appropriately labeled recycle containers generally located in building hallways. Contact the logistics contractor to coordinate pickup of used toner cartridges.

3.6.4.7 Recycle telephone books during the publicized annual recycling campaign by depositing them in the specially marked telephone book recycle containers placed in high traffic areas of MSFC buildings.

3.6.4.8 Recycle lead cell batteries by calling the hazardous waste contractor for pickup.

3.6.4.9 Recycle 55-gallon drums by calling the hazardous waste contractor for turn-in of unused drums. The hazardous waste contractor determines which drums shall be recycled.

3.6.4.10 Recycle used motor oil by calling the hazardous waste contractor for pickup.

3.6.4.11 Recycle engine coolant by calling the hazardous waste contractor for pickup.

3.6.4.12 Recycle scrap metal by placing all scrap metal in the scrap metal dumpsters provided. Material other than scrap metal shall not be placed in these dumpsters.

3.6.4.13 Recycle wooden pallets by placing all wooden pallets in the designated collection area for wooden pallets.

3.6.4.14 Personnel shall not bring items from home to recycle at MSFC.

3.6.4.15 Personnel may recommend new items to consider for recycling by contacting the recycling coordinator.

3.7 Air Compliance. CAA is the comprehensive Federal law that regulates air emissions from area, stationary, and mobile sources. This law authorizes EPA to establish NAAQS to protect health and the environment. The goal of the act was to set and achieve NAAQS in every state by 1975. The setting of maximum pollutant standards and New Source Performance Standards was coupled with directing the States to develop State Implementation Plans applicable to industrial

sources in the State. The Act was amended in 1977 primarily to set new goals for achieving NAAQS because many areas of the country failed to meet the deadlines. In addition, the Prevention of Significant Deterioration program was added. The 1990 amendments to CAA in large part were intended to meet unaddressed or insufficiently addressed problems such as acid rain, ground-level ozone, State permitting programs (Title V), stratospheric ozone depletion, and air toxins. MSFC is a Title V air major source under the CAA Amendments of 1990. As such, emission sources such as paint booths, sandblast facilities, fuel-burning equipment, boilers, fuel tanks, generators, and degreasers that initially require individual construction permits are included in a Title V permit issued by ADEM. MSFC policy is to comply with all CAA laws and regulations enforced by EPA and ADEM.

3.7.1 Responsibilities of the EEMO. The EEMO shall:

3.7.1.1 Provide guidance as necessary to those organizations responsible for processes that produce air emissions, in order to stay within the MSFC air permit guidelines or regulated emissions standards.

3.7.1.2 Develop and maintain a RMP for MSFC, as needed, in accordance with Section 112(r) of the CAA Amendments of 1990, 40 CFR 68.

3.7.1.3 Ensure that MSFC complies with all EPA and ADEM air permitting and RMP requirements as described in MWI 8550.4, “Air Emissions Compliance.” The Title V Air Operating Permit is renewed at 5-year intervals. The significant and insignificant source lists are updated semiannually or as needed based on new sources.

3.7.1.4 Maintain a current copy of the Title V Permit and significant and insignificant source.

3.7.1.5 Initiate necessary corrective action as required by the EPA and/or ADEM in the event of noncompliance.

3.7.2 Responsibilities of MSFC User Organizations. Each organization shall:

3.7.2.1 Implement air permitting compliance activities as listed in MWI 8550.4, “Air Emissions Compliance.”

3.7.2.2 Replace regulated substances with nonregulated substances, where possible. This includes paints, solvents/cleaning solutions, and any other HAP or ODS.

3.7.2.3 Notify the EEMO of new or replacement air emission sources as listed above.

3.7.2.4 Notify the EEMO of any changes in quantities of liquid hydrogen, liquefied natural gas, or propane stored onsite for which the organization is responsible. As processes are added that use one of these chemicals, the organization shall notify the EEMO immediately.

3.7.2.5 If an RMP is needed at MSFC as determined by the EEMO, provide information to the EEMO in support of the development and implementation of the RMP.

3.8 Storm Water and Wastewater Compliance. CWA is a 1977 amendment to the Federal Water Pollution Control Act of 1972, which set the basic structure for regulating discharges of pollutants to waters of the United States. The law gave EPA the authority to set effluent standards on an industry basis (technology-based) and continued the requirements to set water quality standards for all contaminants in surface waters. CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable waters unless a permit (NPDES) is obtained under the act. The 1977 amendments focused on toxic pollutants. In 1987, CWA was reauthorized and again focused on toxic substances, authorized citizen suit provisions, and funded sewage treatment plants (publicly owned treatment plants) under the Construction Grants Program. CWA provides for the delegation by EPA of many permitting, administrative, and enforcement aspects of the law to State governments. MSFC maintains a water quality compliance program to achieve and maintain compliance with CWA and EPA and State water quality requirements. The NPDES and the SID permits regulate MSFC Wastewater Management, which includes storm water runoff and industrial waste discharge. These permits are issued by ADEM and are renewed at 5-year intervals.

3.8.1 Responsibility of the EEMO. The EEMO shall:

3.8.1.1 Provide contractor storm water inspector(s) to regularly inspect designated storm water inspection sites at designated intervals as described in MWI 8550.2, “Storm Water Management.”

3.8.1.2 Provide training as described in Section 3.1 for personnel required to implement the BMPs and retain documentation of such training, which shall be made available for inspection by an ADEM or EPA official.

3.8.1.3 Identify potential sources of storm water and wastewater pollution. Storm water sources are listed in AS10-OI-001.

3.8.1.4 Notify the user of new sources identified within the user’s designated area of responsibility and provide oversight and guidance for making sewer connections pursuant to MWI 8550.3, “Wastewater Compliance.”

3.8.1.5 Control the discharge of industrial wastewater and ensure compliance with the NPDES and SID permits as described in MWI 8550.3, “Wastewater Compliance.”

3.8.2 Responsibilities of MSFC User Organizations. Each organization shall:

3.8.2.1 Comply with all NPDES and SID permit conditions as described in MWI 8550.3, “Wastewater Compliance.” Failure to comply may result in fines, civil or criminal penalties, or other legal enforcement actions.

3.8.2.2 Cooperate with the EEMO storm water inspector(s).

3.8.2.3 Train organization personnel regarding the proper operation of equipment and processes associated with the following sources: USTs and ASTs, hazardous waste/material storage areas, IDW, storage yards, construction activities, erosion, sandblasting, materials handling/fueling areas, equipment parking and maintenance areas/mobile equipment, vehicle washing and maintenance activities, painting and paint removal operations, aboveground pipelines, and buried pipelines.

3.8.2.4 Identify potential sources of storm water and wastewater pollution to the EEMO.

3.8.2.5 Design proper sewer connections for appropriate activities and discharges as described in MWI 8550.3, "Wastewater Compliance."

3.8.2.6 Notify the EEMO of any additions or deletions to the list of storm water inspection sites in the user's area. This list is maintained in accordance with AS10-OI-001.

3.8.2.7 Notify the EEMO whenever changes occur at the facility that could affect storm water quality.

3.8.3 General Information and Requirements. Only the contractor storm water inspector is authorized to release storm water from containment areas.

3.9 Toxic Substance Management. The TSCA of 1976 was enacted by Congress to give EPA the ability to track the thousands of industrial chemicals currently produced by or imported into the United States. EPA repeatedly screens these chemicals and can require reporting or testing. TSCA supplements other Federal statutes, including CAA and the Toxic Release Inventory under EPCRA. MSFC addresses the applicable regulations regarding asbestos, lead, and PCB management to prevent illness to employees and damage to the environment from the use, removal, and disposal of toxic substances. OMEHS has primary responsibility for these issues.

3.9.1 Responsibilities of the EEMO. The EEMO shall:

3.9.1.1 Support the OMEHS as necessary regarding asbestos, lead, PCBs, etc., and their effect on the environment.

3.9.1.2 Provide guidance on the requirements of Federal, State, and local environmental regulations.

3.9.1.3 Provide guidance and oversight on the disposal of ACM, lead, and PCBs, as well as air, water, or soil pollution issues.

3.9.1.4 Ensure proper disposal of lead and PCB wastes.

3.9.2 Responsibilities of the FMO. The FMO shall:

3.9.2.1 Ensure notification of scheduled asbestos abatement to facility occupants, the building manager, and/or the SHE representatives as applicable.

3.9.2.2 Ensure that ACM that may be disturbed in any renovation and maintenance activities is identified through support from OMEHS in the scope of work and removed only by qualified asbestos abatement or maintenance workers.

3.9.3 Responsibilities of the OMEHS. The OMEHS shall:

3.9.3.1 Verify that asbestos related work is performed in accordance with all applicable regulations such as worksite barriers and posting of warning signs.

3.9.3.2 Provide guidance on the requirements of Federal, State, and local occupational and environmental health regulations.

3.9.4 Responsibility of MSFC Organizations. Each organization shall immediately report environmental concerns related to asbestos, lead, PCBs, etc., to the OMEHS Office.

3.9.5 General Information and Requirements. Lead coatings on scrap metal are acceptable for salvage at recycling centers.

3.10 CERCLA. Congress enacted CERCLA, commonly known as Superfund, on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA also enabled the revision of the National Contingency Plan (NCP), which provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List. The Superfund Amendments and Reauthorization Act amended CERCLA on October 17, 1986. The guiding principal of the MSFC CERCLA program is the protection of human health and the environment. The program consists of actions that address: (a) potential releases that may contribute to offsite migration, primarily through ground water; (b) onsite releases that may have a potential for exposure to onsite workers; and (c) the most environmentally sensitive areas at MSFC. The goals are to: (a) investigate and eliminate risks to human health and the environment; (b) protect and satisfy the public; (c) use public funds responsibly; (d) meet regulatory requirements; (e) minimize adverse effects on the NASA mission.

3.10.1 Responsibilities of the EEMO. The EEMO shall:

3.10.1.1 Provide overall management of environmental sites and central coordination of the environmental site access control program at MSFC. All entry onto environmental sites or activities adjacent to these sites which may impact the current or future contaminant nature, extent, or migration shall be controlled and managed to ensure compliance with State and Federal environmental laws and regulations.

3.10.1.2 Ensure MSFC compliance with CERCLA and the Federal Facilities Agreement (FFA) and maintain a current copy of the SMP.

3.10.1.3 Maintain a map of environmentally restricted sites, as well as the information systems necessary to update the site hazard ranking and required controls at those sites as the remedial investigations proceed, and periodically updating the site hazard ranking and required controls. The map of environmentally restricted sites is found at http://eemo.msfc.nasa.gov/environmental/maps/luc_msfc_swmu.pdf. The site hazard ranking information is found at http://eemo.msfc.nasa.gov/environmental/maps/CERCLASiteAccessMatrix.PDF

3.10.1.4 Where soil disturbance is involved, review all Facilities Work Requests, land-use actions, and construction plans to ensure compliance with this document and complete MSFC Form 4464, "CERCLA Site Access Control Checklist," prior to any intrusive activities.

3.10.1.5 Coordinate with the Department of the Army (DA) for work activities performed on Army CERCLA sites on NASA property.

3.10.1.6 Inspect environmental sites quarterly to evaluate CERCLA compliance.

3.10.2 Responsibilities of MSFC User Organizations. Each organization shall:

3.10.2.1 Notify the EEMO of any potentially contaminated site(s) discovered. The EPA maintains the list of contaminated sites at MSFC.

3.10.2.2 During planning efforts and where soil disturbance is involved, contact EEMO to coordinate the construction, demolition, modification, maintenance, landscaping, and land use alterations of facilities within 100 feet of CERCLA site locations. Obtain a MSFC Form 4464 prior to work activities.

3.10.2.3 During construction activities, notify the EEMO of unidentified odors, discoloration, or any suspected areas of contamination. Call 911 for reporting suspected dangerous situations.

3.10.2.4 Notify the EEMO of spills so that reporting requirements can be evaluated.

3.10.3 Requirements for Access to Environmental Sites, which include CERCLA Sites (NASA and DA) and Environmentally Restricted Sites. The map for these sites is kept current and found

at http://eemo.msfc.nasa.gov/environmental/maps/luc_msfc_swmu.pdf.

3.10.3.1 Where soil disturbance is involved, all organizations shall coordinate with EEMO (as specified below) prior to beginning any of the following activities on or adjacent to environmental sites: landscaping, land use alterations, construction and/or demolition work, including Construction of Facilities (CoF), local projects, and maintenance activities.

3.10.3.2 For NASA environmental sites, organizations shall request a completed MSFC Form 4464 from EEMO.

3.10.3.3 For Army environmental sites, organizations shall request that EEMO coordinate with the DA to provide an "Environmental Site Work Plan Evaluation Checklist" described in Army Regulation 200-7.

3.10.3.4 For emergency maintenance procedures, such as repairing leaking pipe on either NASA or DA environmental sites, it may not be feasible to coordinate with EEMO prior to addressing the emergency. In these situations, the organizations shall consult the hazard rankings (as described in 3.10.1.3) to determine the concerns associated with the environmental site in question. Based on the resulting determination, if there is no known or potential contamination that would prevent emergency maintenance work from occurring, maintenance work shall proceed as necessary with appropriate controls. Workers shall replace excavated soil back into the original location after the work is completed, ensuring that the excavated soil is not removed from the site. Organizations shall notify EEMO of the emergency maintenance work performed on the affected environmental site immediately within normal business hours. For after-hours or weekend work, the organizations shall notify EEMO of the maintenance work by the end of the next business day by calling 544-5029 or emailing joe.p.edmondson@nasa.gov.

3.10.3.5 Organizations shall ensure personnel requiring access to environmental sites have appropriate OSHA training described in the CFR at 29 CFR 1910.120 commensurate with the work being performed. Building occupants and workers performing normal operations do not require this training.

3.11 National Environmental Policy Act (NEPA). NEPA was one of the first laws written (1969) that establishes a broad National framework for protecting the environment. Under NEPA, all Federal agencies have a continuing responsibility to minimize adverse environmental impacts and to preserve and enhance the environment as a result of implementing Federal plans and programs. Before an action is taken, NEPA requires NASA to consider environmental values in the planning of Agency actions and activities that may have an impact upon human health and the environment. NEPA directs that NASA consider alternatives to its proposed activities and requires that environmental factors be considered alongside the technical and economic considerations that are normally incorporated into NASA decision making. NEPA also requires that the information be available to NASA decision makers in a timely manner to enable examination of the environmental consequences of the proposed action or activity being considered, and that those environmental considerations be available to the public as well

as to other Federal, State, and local agencies.

3.11.1 Responsibilities of the EEMO. The EEMO shall:

3.11.1.1 Ensure MSFC compliance with NEPA and the CEQ.

3.11.1.2 Ensure that all actions (e.g., program, project, construction) are considered for environmental impacts prior to decisions.

3.11.1.3 Recommend and assist in the implementation of a plan of action for satisfying NEPA requirements specified in 14 CFR 1216, NASA Environmental Quality.

3.11.2 Responsibilities of MSFC User Organizations. Each organization shall:

3.11.2.1 Be responsible for compliance with NEPA and CEQ.

3.11.2.2 At the onset of a program or project, complete the Environmental Evaluation Checklist (contact EEMO to obtain the latest version) and submit to EEMO.

3.11.2.3 Consult with EEMO to determine appropriate requirements to meet NEPA regulations and NPR 8580.1, "Implementing the National Environmental Policy Act and Executive Order 12114."

3.11.3 General Information and Requirements. At the onset of a program or project, program management shall consult with the EEMO for guidance in satisfying NEPA requirements. Refer to NASA Headquarters Environmental Management Reference Manual.

3.12 Threatened and Endangered Species. The Endangered Species Act provides a program for the conservation of threatened and endangered plants and animals and their habitats. The USFWS of the Department of the Interior maintains the list of endangered species and threatened species. Species include birds, insects, fish, mollusks, reptiles, mammals, crustaceans, flowers, grasses, and trees. The law prohibits any action, administrative or real, that results in a "taking" of a listed species or that adversely affects habitat. MSFC seeks to protect threatened and endangered species, both flora and fauna. When proposing a project, MSFC shall consult the USFWS and the Alabama Department of Conservation and Natural Resources regarding the potential to affect threatened and endangered species.

3.12.1 Responsibility of the EEMO. The EEMO shall:

3.12.1.1 Ensure that threatened and endangered species are protected.

3.12.1.2 Provide awareness training as necessary to designers, construction, and maintenance personnel.

3.12.1.3 Obtain biological assessments and opinions as required to support construction/maintenance activities at MSFC. This process typically takes 90 days.

3.12.1.4 Maintain a "Field Manual of Threatened and Endangered Species Potentially Occurring at MSFC."

3.12.1.5 Implement formal consultation process to obtain regulating agency approval for actions with potential impact to threatened and endangered species.

3.12.2 Responsibility of MSFC User Organizations. Each organization shall:

3.12.2.1 Ensure that the "Field Manual of Threatened and Endangered Species Potentially Occurring at MSFC" is made available to personnel responsible for design, construction, and maintenance activities.

3.12.2.2 Notify the EEMO immediately if threatened or endangered species are encountered during construction and/or maintenance activities and immediately suspend activities.

3.12.2.3 Avoid site construction activities, if practicable, in areas known to contain threatened and endangered species.

3.13 Wetland Permitting Procedures. Disturbances to wetlands and waters of the United States may require permits from the United States Army Corps of Engineers, ADEM, and the Tennessee Valley Authority. Two types of permits are administered by the USACE Section 404 program under CWA: Individual and General (Nationwide or Predischarge Notification). TVA administers Section 26a Shoreline Construction permits for any construction activities that affect navigation, flood control, or public lands along the shoreline of the TVA reservoirs or in the Tennessee River or its tributaries. The type of permit and the length of internal review depend on the nature of the projects and the type and extent of wetlands affected. USACE and TVA permits are submitted on a joint application form that applies for both organizations. For projects involving potentially significant impacts, authorization shall be sought through an application for an individual permit. The individual permit requires detailed information about the project and its potential effects on the environment. The information in the permit application undergoes review by several regulatory agencies including the USFWS and the NMFS. In addition to the regulatory review, the individual permit application undergoes a public notice review that is scheduled for 30 days but may be longer if comments are significant. An individual permit may take anywhere from 3-12 months, depending on the complexity of the project, agency coordination, and public comment. The Nationwide permit is the type of general permit used for common, minor construction projects that occur in a localized area but are similar in scope throughout the Nation, such as the construction of an underground pipeline that crosses wetlands, construction of road crossings through wetlands, and discharges into wetlands located above headwaters. Submittal of a pre-construction notification (PCN) for a nationwide permit allows the USACE 45 days for review once a complete application is received. USACE has 30 days to review the initial application to determine whether it is complete and may make

one request for additional information necessary to complete the application. The 45-day period begins once the requested information is received by USACE. Mitigation may be required for any permitted activity. Activities that require submittal of a PCN or an individual permit are subject to review by the State Historic Preservation Office, the USFWS, and the Alabama Department of Natural Resources to determine whether the proposed project would impact cultural and archeological resources, federally listed threatened and endangered species, and state protected species. ADEM is empowered through Section 401 of the Clean Water Act to certify that any action conducted under a Section 404 permit does not result in degradation of the quality of surface waters. The USACE permit typically is issued conditional upon obtaining Section 401 certification from ADEM. For projects authorized under an NWP, ADEM typically waives the certification process.

3.13.1 Responsibilities of the EEMO. The EEMO shall:

3.13.1.1 Ensure that construction projects and/or maintenance activities impacting wetlands are permitted.

3.13.1.2 Determine whether a general permit or individual permit is required from the USACE.

3.13.1.3 Review, approve, and submit permit applications for the MSFC.

3.13.1.4 Maintain wetland maps and include with MSFC Master Plans.

3.13.1.5 Ensure that all requirements in a wetland permit are effectively implemented.

3.13.2 Responsibilities of MSFC User Organizations. Each organization shall:

3.13.2.1 Ensure that construction projects and/or maintenance activities are identified to the EEMO in a timely manner so that permits may be obtained to meet established schedules. (Typically, the EEMO requires 120 days advance notice to meet construction/maintenance schedules.)

3.13.2.2 Implement any required mitigation specified in a wetland permit.

3.13.2.3 Provide necessary data as requested by the EEMO for the wetland permit application.

3.13.3 General Information and Requirements.

3.13.3.1 If less than 0.1 acre of wetlands, the action may be covered under a Nationwide permit (NWP) without a PCN to the USACE. There are multiple nationwide permits based on the type of activity (different amounts of impact -- acres of wetlands or cubic feet of fill and or linear feet of stream impacts trigger the different NWP). Any mechanized land clearing of a forested wetland requires permitting and mitigation for the conversion or loss of wetlands. Within 30 days of completion of work authorized under an NWP that does not require a PCN, the EEMO

shall notify the USACE that the work was done. The notification shall include a description of the work and any impacts to regulated waters that resulted, and it also shall state that the work was conducted in compliance with all general and regional conditions of the NWP under which it was authorized.

3.13.3.2 If greater than 0.1 acre and less than 0.5 acre of wetlands or greater than 200 feet of stream will be impacted, the EEMO shall coordinate with regulating agency before proceeding with action. The appropriate PCN shall be filed and no work shall be undertaken prior to obtaining the written authorization.

3.13.3.3 If greater than 0.5 acre of wetlands will be impacted, the EEMO shall proceed with obtaining a permit. An individual permit shall be applied for and no work shall be undertaken prior to obtaining the written authorization.

3.14 Pesticides. The primary focus of FIFRA is to provide Federal control of pesticide distribution, sale, and use. EPA was given authority under FIFRA to study the consequences of pesticide usage and to require users (farmers, utility companies, and others) to register when purchasing pesticides. Through later amendments to the law, users now take exams for certification as applicators of pesticides. All pesticides used in the United States are required to be registered (licensed) by EPA. Registration ensures that pesticides are properly labeled and, if used in accordance with specifications, do not cause unreasonable harm to the environment. MSFC maintains safe, effective, and environmentally sound pest management pursuant to FIFRA to prevent or control pests that may adversely impact the health of personnel or damage structures or property.

3.14.1 Responsibility of the EEMO. The EEMO shall inspect the pesticide storage facilities to verify that the pesticides are stored properly, to verify that equipment is in working order, to review where chemicals are mixed, and to confirm that records on pesticide management and use are maintained.

3.14.2 Responsibilities of FMO (AS20) and Integration Office (AS60). These organizations shall:

3.14.2.1 Maintain MSDSs for the pesticides used at MSFC.

3.14.2.2 Exercise oversight and review of pest management activities throughout MSFC.

3.14.2.3 Conduct onsite reviews of the MSFC pest control program on an annual basis.

3.14.2.4 Provide management support, resources, and a professionally qualified licensed pest management staff sufficient to ensure effective implementation of pest management.

3.14.2.5 Ensure that all pesticide applications are made only by properly trained and licensed personnel.

3.14.2.6 Ensure that all pest control is performed in accordance with Federal, State, and local environmental laws and regulations. The contractor shall maintain onsite all application records, and these records shall be available for inspection by Government and other environmental inspectors at all times.

3.14.3 General Information and Requirements. To ensure good air quality, employees shall not use pesticides for indoor office plants.

3.15 Historic Preservation. The National Historic Preservation Act of 1966 provides the mechanism through which historically or culturally significant buildings, structures, and other objects are protected and preserved. The act established a NRHP and the ACHP. Federal agencies are required to consider the effects of their undertakings on historic resources and to give ACHP a reasonable opportunity to comment on those undertakings. The NPR 8580.1, "Implementing the Provisions of the National Environmental Policy Act and Executive Order 12114," includes specific procedures for the evaluation of potentially historic sites and structures within NASA property.

3.15.1 Responsibilities of the FMO. The FMO shall:

3.15.1.1 Appoint a Historic Preservation Officer.

3.15.1.2 Evaluate the potential eligibility of sites within the Center for historical significance through direct contact with the State Historic Preservation Officer, published lists of the NRHP, public records, or other organizations with historical and cultural experience.

3.15.1.3 In instances where it is unclear whether cultural resources would be affected, initiate a study before construction of land-disturbing activities begins.

3.15.1.4 Ensure that MSFC cultural resources shall be properly managed.

3.15.2 Responsibility of MSFC User Organizations. Organizations shall comply with cultural resources requirements as identified by FMO.

3.16 Radiation. The OMEHS shall be responsible for implementing and maintaining the Radiation/Laser Safety Program per MPD 1860.1, "Laser Safety," and MPD 1860.2, "Radiation Safety Program."

4. RECORDS

4.1 Environmental training records shall be maintained in accordance with MPR 3410.1, "Training."

4.2 Storm water inspection records shall be maintained by EEMO for 5 years, and then destroyed, in accordance with NRRS 8/43/D/5.

4.3 Chemical inventory database records shall be maintained by the onsite environmental support contractor for 5 years, and then destroyed, in accordance with NRRS 8/43/A/1.

4.4 MSFC Form 4464, "CERCLA Site Access Control Checklist," shall be retired by EEMO after 5 years, and then destroyed after 10 years, unless it conflicts with CERCLA Section 103, in accordance with NRRS 8/43/G.

5. FLOW DIAGRAM

None.